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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/805,230 | 03/22/2004 | Sang-Il Park | 61610119US | 9030 |
| 58027 | 7590 | 03/22/2006 | EXAMINER | |
| H.C. PARK & ASSOCIATES, PLC 8500 LEESBURG PIKE SUITE 7500 VIENNA, VA 22182 | | | HODGES, MATTHEW P | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2879 | |

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,230

Applicant(s)

PARK ET AL.

Examiner

Matt P. Hodges

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 and 21 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-17 is/are rejected.
- 7) ☒ Claim(s) 8,9,18 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/16/2005.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date, ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 6, 7, 10-13, 16, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Park et al. (US 6,870,186)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1, 3, 6, 7, 10, 13, 16, and 17, Park discloses (see figure 11) an organic EL device including a substrate (410), a third pixel electrode (414), a first pixel electrode (440), and a second pixel electrode (438). The first pixel electrode is composed of AlNd. (Column 13 lines 5-10). Further the second pixel covers the entire top surface of the first pixel while the first pixel covers the entire top surface of the third pixel. The third pixel is tapered.

Regarding claim 12, the first and second pixel electrodes are formed by the same process and shape and likewise by the same mask.

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Regarding claims 1, 2, 10 and 11, Park alternatively discloses (see figure 12) the same device as stated above but the first pixel (514b) is tapered and covered by the second pixel (538) without a third pixel.

Claims 1 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Seo. (US 6,787,249)

Regarding claims 1 and 10, Seo discloses (see figure 5a) an organic EL device including a substrate (501), a first pixel electrode (503), and a second pixel electrode (514). Further the second pixel covers the entire top surface of the first pixel.

Claims 1, 3, 4, 10, and 12-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukunaga et al. (US 6,608,449)

Regarding claims 1, 3, 4, 10, 13, and 14, Fukunaga discloses (see figure 2A) an organic EL device including a substrate (201), a first pixel electrode (207), and a second pixel electrode (208). The first pixel electrode is composed of an aluminum alloy while the second electrode is composed of ITO. (Column 9 lines 55-65). Further the second pixel covers the entire top surface of the first pixel.

Regarding claim 12, the first and second pixel electrodes are formed by the same process and shape and likewise by the same mask.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunaga et al. (US 6,608,449).

Regarding claims 5 and 15, Fukunaga discloses the device as claimed (see rejections of claims 1 and 10 above, but does not appear to specify the aluminum alloy being AlNd. However it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Specifically it would have been known to select the aluminum alloy from those known to be used for electrodes in active matrix OLEDs. AlNd is known for that purpose and is consistent with the usage described by Fukunaga. Further applicant fails to identify the use of AlNd to solve any problem or yield any unexpected result that is not within in the scope of the teachings relied upon. Therefore It would have been an obvious design choice to one having ordinary skill in the art to use AlNd as the aluminum alloy in the device disclosed by Fukunaga since such a modification would involve a mere substitution of a known material consistent with the usage disclosed by the prior art.

Allowable Subject Matter

Claims 20 and 21 are allowed.

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Claims 8, 9, 18 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 8, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 8, and specifically comprising the limitation of an organic EL device including a third pixel electrode where the third pixel electrode is constructed from one of the materials listed in the claim.

Regarding claim 9, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 9, and specifically comprising the limitation of an organic EL device including a third pixel electrode where the third pixel electrode is constructed from ITO.

Regarding claim 18, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 18, and specifically comprising the limitation of the manufacture of an organic EL device including a third pixel electrode where the third pixel electrode is constructed from one of the materials listed in the claim.

Regarding claim 19, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 19, and specifically comprising the limitation of the manufacture of an organic EL device including a third pixel electrode where the third pixel electrode is constructed from ITO.

Regarding claim 20, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 20, and specifically comprising the limitation

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of an organic EL device including a first pixel electrode and third pixel electrode where both electrodes are completely covered and have tapered sides.

Regarding claim 21, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 21, and specifically comprising the limitation of the manufacture of an organic EL device including a first pixel electrode and third pixel electrode where both electrodes are completely covered and have tapered sides.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yamazaki et al. (US 2003/0201716) discloses the use of a multi-layered pixel electrode.

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt P Hodges whose telephone number is (571) 272-2454. The examiner can normally be reached on 7:30 AM to 4:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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